

Sheldrake, Sean

From: BAYUK Dana [BAYUK.Dana@deq.state.or.us]
Sent: Wednesday, July 03, 2013 2:34 PM
To: Sheldrake, Sean
Cc: Lance Peterson; Scott Coffey; BURKHART Robert; GAINER Tom; LARSEN Henning; THIESSEN Kenneth
Subject: FW: Response to DEQ June 20 Meeting Notes on June 17 Gasco DEQ Technical Meeting and Agenda for July 15 technical meeting
Attachments: Gasco Source Control Process Timeline_6-28-13.xlsx

FYI...I'm forwarding Anchor's response to the meeting summary we sent on June 20th.

Mr. Dana Bayuk, Project Manager
Cleanup & Portland Harbor Section
Oregon Department of Environmental Quality
2020 SW 4th Avenue, Suite 400
Portland, OR 97201
E-mail: bayuk.dana@deq.state.or.us
Phone: 503-229-5543
FAX: 503-229-6899

Please visit our website at <http://www.oregon.gov/DEQ/>



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From: John Edwards [mailto:jedwards@anchoragea.com]
Sent: Wednesday, July 03, 2013 2:27 PM
To: BAYUK Dana
Cc: Bob Wyatt; Patty Dost; Ben Hung; James Peale; Carl Stivers; Rob Ede; John Renda; Michael Riley; Pradeep Mugunthan
Subject: FW: Response to DEQ June 20 Meeting Notes on June 17 Gasco DEQ Technical Meeting and Agenda for July 15 technical meeting

Hello Dana. Thanks for preparing the June 20 email summarizing the highlights of the June 17 NW Natural meeting with DEQ and EPA. This email is our response to DEQ's June 20 summary items 1 through 7 and the Fill WBZ interceptor system. We also provide a suggested agenda for the July 15 meeting and a toll free conference call number.

1. Source Control Construction Update

Baseline DNAPL monitoring is being conducted consistent with the "Work Plan to Assess Baseline Groundwater Conditions" and Section 3.2.2.5.3 and Table 3-5 of the Construction Design Report (CDR) as modified by DEQ's August 9, 2012 comments.

DNAPL was detected in newly installed wells MW-26U, MW-34L, MW38U, and PW-2L. DNAPL has been recovered from MW-34L, MW-38U, and PW-2L. The DNAPL thickness in MW-26U has been less than 0.25-thick and will be removed before reaching to top of the sump. In addition to the new installations, DNAPL is being monitored and recovered in PW-1-80. Removal is being done to maintain DNAPL within these installations at levels below the tops of the sumps.

We also want to make one revision to Section 3.2.2.5.3 of the CDR, where it says that we will install DNAPL pumps in all Upper Alluvium extraction wells. The revision is to defer installation of DNAPL pumps until DNAPL is observed in order to insure the equipment remains operational. During the meeting, Henning asked about the status of DNAPL pump installation and John Renda told him that the pump installation is a simple procedure and that we plan to install the DNAPL pumps immediately after DNAPL is detected in a well sump. To date, no DNAPL has accumulated in the sumps of any of the Upper Alluvium extraction wells. All of the extraction wells have air lines installed to them to operate DNAPL removal pumps if they are needed, and we are maintaining an inventory of DNAPL pumps onsite. If we install the pumps

before DNAPL is detected, and they sit idle for months or years before DNAPL accumulates in the sump, the pumps may not work when needed.

Anchor QEA is preparing a work plan to convert extraction wells PW-2L and PW-10L into 2-inch diameter piezometers. Anchor QEA intends to submit the plan to DEQ and WRD for review by the end of July and complete the work before the initial phase of HC&C testing.

2. NPDES Permit Update

No comment other than NW Natural's understanding that the NPDES permit will be finalized by July 8, which is 3 weeks from the June 17 meeting.

3. Source Control Document Schedule

NW Natural has reviewed DEQ's recommended revisions shown in the draft schedule handed out during the June 17 meeting and made some additional recommended revisions that are shown on the revised schedule attached to this email. Two tasks were added to the schedule; the plan to convert PW-2L and PW-10L to monitoring wells, and the TarGOST monitoring proposal. We changed the task title for the NPDES permit task and we revised many of the dates for preparation and review of the documents. We request that DEQ review this revised schedule and provide acceptance or written comments in writing.

4. River level delay of final piezometer construction

No Comment.

5. TarGOST Monitoring Borings (TMA)

Anchor QEA intends to provide a proposal to modify the TMA boring locations by July 8, 2013.

6. Portland BES request for DEQ to review outside chem storage area design

We appreciate DEQ moving quickly to respond to the City of Portland request and ask DEQ to let us know right away if there are questions or technical issues that are preventing DEQ approval of the documents.

7. Upland Risk Assessment

No comment.

Additional Topics

Fill WBZ Interceptor Trench.

This meeting was the first time that we learned of DEQ's revised thinking on the interceptor trench construction schedule. During the meeting Anchor QEA informed DEQ that we would discuss DEQ's expected revised construction schedule with NW Natural. DEQ acknowledged in the meeting that the only date associated with the Fill WBZ interceptor system that NW Natural has agreed to is the end of June (July 1) submittal of the Fill WBZ Trench Investigation Workplan.

We request DEQ's response to these meeting notes and the schedule at your earliest convenience.

We also provide the following information in anticipation of the upcoming July 15 meeting with DEQ.

Suggested Meeting Agenda Items:

Source Control

- Source Control Schedule
- Extraction System Test Plan status and schedule
- Model Update Report status and schedule
- NPDES permit status
- Treatment system construction status
- Fill WBZ Investigation Plan status

For those calling in please use the following number and code.

(b) (6)

code: (b) (6)

thanks

John

John E. Edwards, RG, CEG

ANCHOR QEA, LLC

**Please note new address and phone number*

6364 Toohey Road
Bozeman, MT 59715

Main 406-586-8811
Cell 406-581-0877

ANCHOR QEA, LLC

www.anchorqea.com

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From: BAYUK Dana [<mailto:BAYUK.Dana@deq.state.or.us>]

Sent: Thursday, June 20, 2013 7:00 PM

To: John Edwards; Ben Hung

Cc: Pradeep Mugunthan; John Renda; Michael Riley; Carl Stivers; Rob Ede; James Peale; Sean Sheldrake; 'Peterson, Lance'; Coffey, Scott; BURKHART Robert; GAINER Tom; LARSEN Henning

Subject: RE: Gasco DEQ Technical Meeting June 17: Call 1-877-820-7831; 660026

Hello John/Ben.

This e-mail summarizes the highlights that DEQ took away from the monthly meeting held on Monday June 17, 2013.

Anchor provided the agenda for the meeting in an e-mail sent on Friday June 16th (see below). The meeting highlights are included under the corresponding agenda item. Items indicated with a "***" should be noted or need follow-up.

In addition to Anchor's agenda, DEQ provided a hand-out summarizing the highlights of the May 20th monthly meeting and a revised version of the Source Control Milestone Schedule Anchor provided at that meeting. These handouts are attached.

1. Source Control Construction Update

Except for the PZ-09 piezometer cluster, Anchor indicated that all of the extraction wells, performance monitoring, wells, and piezometers are installed and developed. In addition, step-drawdown testing is complete at all of the extractions wells.

Drilling and installation of PZ-09 cluster is currently scheduled for early July, however the schedule is dependent on river levels and may have to be postponed to later in the year.

Conveyance lines between the extraction wells and to the pre-treatment facilities are installed and pressure testing is complete.

Construction of the treatment system is ongoing and is expected to continue for "many weeks."

Baseline information on DNAPL is being monitored. DEQ understands monitoring is currently being performed consistent with "Work Plan to Assess Baseline Groundwater Conditions" and Section 3.2.2.5.3 and Table 3-5 of the Construction Design Report (CDR) as modified by DEQ's August 9, 2012 comments.

**DEQ requests that Anchor confirm, clarify, or correct our understanding of the DNAPL monitoring.

Removal of DNAPL is occurring at extraction wells PW-2L and PW-1-80 and in two monitoring wells (MW-34 & MW-37[?]). Removal is being done to maintain DNAPL within these installations at levels below the tops of the sumps.

**Anchor is going to confirm the numbers and locations of the installations from which DNAPL is being removed and route that information to meeting participants.

DEQ requested an update on the status of the work plan to decommission extraction wells PW-2L and PW-10L. Anchor indicated a work plan is being developed to convert the extraction wells into 2-inch diameter monitoring wells. Anchor did not have a projected date for submitting the work plan. DEQ understands converting the installations will precede the initial phase of HC&C testing (Step 1).

**DEQ requests the plan be submitted no later than the end of July to provide for DEQ and WRD review.

2. NPDES Permit Update

DEQ provided the following information on the status of the NPDES permit:

- Rob Burkhart is currently preparing a reply to the review comments provided by the City of Portland; and

- Based on public review and comment two revisions will be made to the permit; 1) insert a missing verb; and 2) change references to "composite" VOC and cyanide sampling to "discrete" VOC and cyanide sampling.

Anchor asked a couple of question that DEQ has followed up on.

- Can DEQ provide NW Natural a copy of the reply to the City? Yes, a copy will be provided along with the final permit.

- What's the timeframe for finalizing the permit? 2 to 3 weeks from June 17th

3. Source control document schedule

DEQ's revisions to the source control schedule Anchor provided on May 20th were discussed. Anchor will review the revisions, update the schedule based on the current status of ongoing work, and provide a copy for DEQ's review. Pending the outcome of our review, Anchor requested DEQ to acknowledge our acceptance of the next version of the schedule in writing.

4. River level delay of final piezometer construction

See the discussion of the PZ-09 piezometer cluster under agenda Item #1.

5. TarGost Monitoring Borings (TMA)

Anchor proposes to conduct Targost drilling and logging for purposes of locating the "Targost Monitoring Areas" (TMA's) prior to starting the initial phase of HC&C system testing. DEQ acknowledged this approach would provide data regarding DNAPL baseline conditions (i.e., conditions not influenced by pumping during the initial testing phase). However, DEQ also noted the initial testing phase data would not be available as a line-of-evidence for selecting the final TMA's as discussed in our August 9th comments letter. DEQ understands Anchor will provide a proposal for the Targost boring locations based on new information assembled during construction of the HC&C system installations (e.g., updated geologic cross-sections). DEQ will review the proposal and our 8/9 comments to determine whether the new approach is acceptable or whether the approach to Targost monitoring should be further modified.

The timeframe for developing a revised approach for the Targost work is constrained by the initial phase of testing (Step 1) which has a projected start date in early September. The Targost equipment is currently scheduled for mobilization to the site sometime in August.

**DEQ requests that by July 1st Anchor provide a timeframe for submitting the proposal for a revised approach to the Targost work for DEQ's information and for purposes of scheduling staff.

6. Portland BES request for DEQ to review outside chem storage area design

Subsequent to the meeting I learned that Greg East of the City sent me a check sheet on June 7th for a dewatering plan associated with the chemical storage building. A copy of the check sheet is attached. I followed up with Brady Berry who routed me supplemental information today. I will review the information Brady provided sometime next week then follow-up with the City.

7. Upland Risk Assessment

The risk assessment was briefly discussed. NW Natural provided a position paper on 6/17 that DEQ is looking at.

Additional Topics

DEQ discussed the Fill WBZ interceptor trench (trench) in the context of the new approach for conducting HC&C testing. DEQ previously communicated in meetings and correspondence our expectation that construction of the trench would be initiated no later than 6-months after full-time full-scale start-up of the HC&C system. The HC&C testing plan and start-up schedule included in the CDR anticipated full-time full-scale start-up at the end of this year. Based on this information, trench construction would begin in the middle of 2014.

The new approach to HC&C system testing involves two steps...an initial 1-3 month long testing phase (Step 1) that transitions into a second longer term testing phase that occurs over 9-11 months (Step 2). DEQ indicated during the meeting that in the context of new testing approach, our expectation is that trench construction would occur no later than 6-months after the initiation of testing Step 2.

Please feel free to contact me with questions regarding this e-mail.

Regards,

Dana

Mr. Dana Bayuk, Project Manager
Cleanup & Portland Harbor Section
Oregon Department of Environmental Quality
2020 SW 4th Avenue, Suite 400
Portland, OR 97201
E-mail: bayuk.dana@deq.state.or.us
Phone: 503-229-5543
FAX: 503-229-6899
Please visit our website at <http://www.oregon.gov/DEQ/>

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From: John Edwards [<mailto:jedwards@anchoragea.com>]

Sent: Sunday, June 16, 2013 2:48 PM

To: BAYUK Dana

Cc: Jennifer Woronets; Ben Hung; Pradeep Mugunthan; Carl Stivers; Michael Riley; Rob Ede; John Renda; Taku Fuji; James Peale; Bob Wyatt; Patty Dost

Subject: RE: Gasco DEQ Technical Meeting June 17: Call 1-877-820-7831; 660026

Hello Dana. Please consider the following list of suggested agenda topics for tomorrow's 1:30 meeting at DEQ. There are a lot things in play these days so we may not be able to get through all of these topics, but we could prioritize them at the beginning of the meeting. The focus of the meeting is on source control, but we added the upland risk assessment in case there is time.

Source control construction update
NPDES permit update
Source control document schedule
River level delay of final piezometer construction
TarGost Monitoring Borings (TMA)
Portland BES request for DEQ to review outside chem storage area design

Upland Risk Assessment

thanks

John

John E. Edwards, RG, CEG

ANCHOR QEA, LLC

*Please note new address and phone number

6364 Toohey Road
Bozeman, MT 59715

Main 406-586-8811
Cell 503-816-6595

ANCHOR QEA, LLC

www.anchorqea.com

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